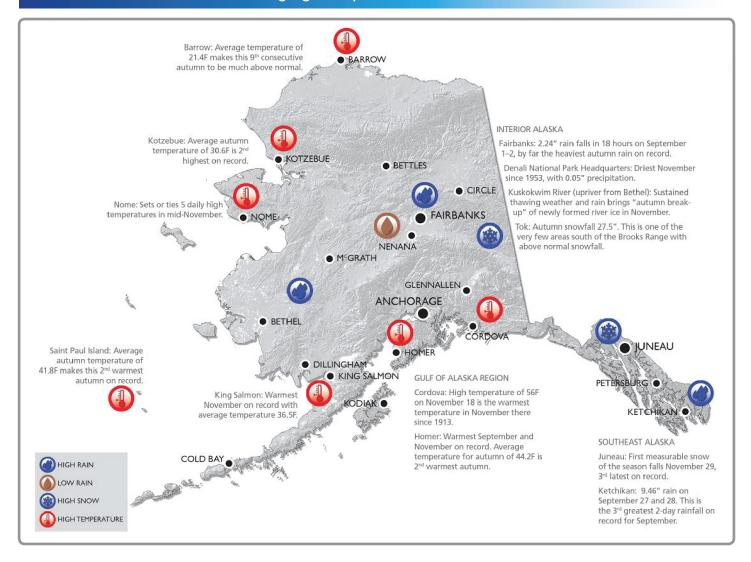
Quarterly Climate Impacts and Outlook

Alaska Region

December 2014

Alaska - Weather and Climate Highlights September-November 2014



The lack of snowfall and persistently mild temperatures across much of mainland Alaska, south of the Brooks Range, in late October and November, accompanied with insufficient snow cover for snow machine use and thin and discontinuous river ice, greatly hampered travel and subsistence activities in many rural areas. Parts of the Kuskokwim River experienced an "autumn break up" as thawing temperatures and rain caused newly formed river ice to move and form local jams. While there was no significant flooding, it made travel on the river unsafe and has the potential to increase the risk of ice jam flooding next spring.

The mild weather and a lack of snow also impacted the rail belt. Both Hilltop Ski Area in Anchorage and Alyeska in Girdwood were unable to open for Thanksgiving, probably for the first time since 2002. Icy driving conditions, while not as severe or as long lasting as 2013, were occasionally a problem. In Southcentral, the icy conditions were due to light freezing rain. In the Interior, the icy roads were from frost buildup on frozen pavement during the mild weather in November.

There were no major Bering Sea storms this autumn, but Southeast Alaska was buffeted by several strong storms. One storm brought wind gusts to 62 mph on the evening of October 2 at Craig, bringing down some trees and damaging the roofs of at least two residences. The same storm drenched Haines with four inches of rain between the third and fifth, causing a mudslide that completely blocked an area road. On November 5, a fast-moving, rapidly strengthening storm brought locally strong winds to central and southern Southeast. The Ketchikan area was hardest hit, with winds gusting over 70mph. Downed trees blocked the North Tongaas highway for two hours. The strong winds produced blowing spray that shorted out power lines, causing electrical outages that took up to six hours to restore.

While much of Alaska was dry this autumn, Kodiak had several days of heavy rain in mid-November, with more than six inches falling between the 9th and 12th, which caused several mudslides in the area that temporarily closed roads. Precipitation was also above normal on the North Slope, and snow cover was established early in October, allowing for cross-tundra travel to start on schedule.



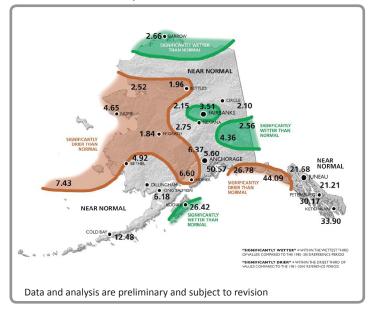
Regional Highlight - Temperatures Significantly Above Normal

Temperature and Precipitation Anomalies

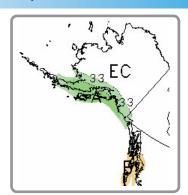
Alaska Statewide Temperature Anomalies September-November 2014

21.4 • BARROW 21.3 27.3 21.9 24.2 NEAR NORMA 41.8 Data and analysis are preliminary and subject to revision

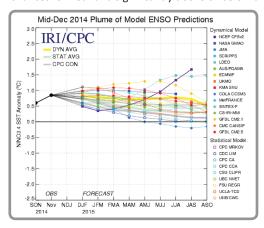
Alaska Statewide Precipitation Anomalies September-November 2014



Regional Outlook for January—March 2015



The outlook for late winter from NOAA's Climate Prediction Center calls for enhanced chances of significantly above normal temperatures across the state. From the Alaska Range and the Kuskokwim delta southward, significantly above normal temperatures are likely. In January-March, total precipitation is expected to be significantly above average from the eastern Gulf of Alaska Coast west to the Alaska Peninsula. Conversely, there is a slightly increased chance of significantly below normal precipitation in the southern Southeast. Elsewhere, there are equal chances for near and significantly above or below average precipitation.



Interpreting Model Forecasts The graph left shows forecasts made by dynamical and statistical models for sea surface temperature (SST) in the Niño 3.4 region for nine overlapping three month periods. Note that the expected skills of the models, based on historical performance, are not equal to one another. The skills also generally decrease as the lead time increases. Differences among the forecasts of the models reflect both differences in model design, and actual uncertainty in the forecast of the possible future SST scenario.

Alaska Region Partners

Alaska Center for Climate Assessment and Policy www.accap.uaf.edu

Alaska Climate Research Center http://climate.gi.alaska.edu/

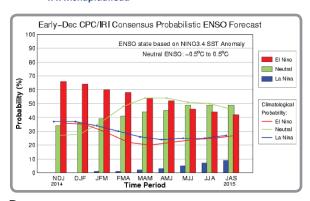
Alaska Climate Science Center http://www.doi.gov/csc/alaska/index.cfmg

Cryosphere Today (University of Illinois), http://arctic.atmos.uiuc.edu/cryosphere/

NOAA/NWS Weather Forecast Offices in Fairbanks, Anchorage and Juneau

NOAA/NESDIS/NCDC www.ncdc.noaa.gov

Scenarios Network for Alaska and Arctic Planning www.snap.uaf.edu



During October through November the SST exceeded thresholds for weak Niño conditions, although only some of the atmospheric variables indicate an El Niño pattern. Most of the ENSO prediction models indicate weak El Niño conditions during the November through January season in progress, continuing well into the northern spring 2015.